CLAIMS

1. Use of an antisecretory protein or homologues thereof having the same functional properties, or an oligo- or polypeptide or derivatives thereof comprising an amino acid sequence of Formula I:

X1-V-C-X2-X3-K-X4-R-X5 (Formula I)

wherein

X1 is I, amino acids nos. 1-35 of SEQ ID NO:1, or is absent

X2 is H, R or K

X3 is S or L

X4 is T or A

X5 is amino acids nos. 43-46, 43-51, 43-80 or 43-163 of SEQ ID NO:1, or is absent,

or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment and/or prevention of a condition associated with or characterised by rescue a pathological loss and/or gain of cells and/or brain oedema.

2. Use according to claim 1, wherein Formula I has the sequence chosen from one of:

a) amino acids numbers 35-42 of SEQ ID NO:1,

b) amino acids numbers 35-46 of SEQ ID NO:1,

c) amino acids numbers 36-51 of SEQ ID NO:1,

d) amino acids numbers 36-80 of SEQ ID NO:1,

e) amino acids numbers 1-80 of SEQ ID NO:1, or

f) amino acids numbers 1-163 of SEQ ID NO:1

or a pharmaceutically acceptable salt thereof.

3. Use of an antisecretory protein inducing food in the manufacture of a food or medical food for the treatment and/or prevention of a condition associated with or characterised by rescue or a pathological loss and/or gain of cells and/or brain oedema.

4. Use of an egg yolk with a high level, preferably at least 1000 FIL units/ml, of antisecretory protein or homologues thereof having the same functional properties, in the manufacture of a food or a medical food for the treatment and/or prevention of a condition associated with or characterised by rescue or by a pathological loss and/or gain of cells and/or brain oedema.

5. Use according to any one of claims 1-4, wherein the condition is characterised by displaying a pathological degeneration of, loss of ability and/or loss of control of regeneration of and/or loss of control of regeneration of a differentiated cell and/or tissue, an embryonic stem cell, an adult stem cell, a progenitor cell and/or a cell derived from a stem cell or progenitor cell.

6. Use according to any one of claims 1-5, wherein the condition is associated with or characterised by a pathological loss and/or gain of cells in the peripheral nervous system, autonomic nervous system and/or central nervous system.

7. Use according to any one of claims 1-6, wherein the condition is associated with or characterised by a pathological loss and/or gain of neural stem cells or neural progenitor cells.

8. Use according to any one of claims 1-5, wherein the condition is associated with or characterised by a pathological loss and/or gain of oligodendroglia, astroglia, Schwann cells, and/or neuronal cells and/or cell populations.

9. Use according to claims 8, wherein the condition is associated with or characterised by a pathological loss and/or gain of non-cholinergic neuronal cells, cholinergic neuronal cells and/or glial cells, and/or cell populations.

10. Use according to any one of claims 1-9, wherein the condition is caused by damage to the central nervous system or a defect in the central nervous system.

11. Use according to any one of claims 1-9, wherein the condition is caused by a traumatic, malignant, inflammatory, auto-immune or degenerative disorder.

12. Use according to any one of claims 1-9, wherein the condition is caused by axonal damage caused by concussion, contusion, axonal damage caused by head trauma, axonal damage caused by small vessel disease in the CNS and/or damage to the spinal cord after disease and/or trauma.

13. Use according to any one of claims 1-12, wherein wherein said condition is characterised by memory loss.

14. Use according to any one of claims 1-13, wherein the condition is brain oedema, multiple sclerosis, asphyxia, hypoxic injury, ischemic injury, traumatic injury, Parkinson's disease, Alzheimer's disease, stroke, Ménière's disease or demyelinating disorder.

15. Use of an egg yolk with a high level of antisecretory proteins or homologues thereof having the same functional properties according to any one of claims 1-14.

16. Use of a food and/or drinking solution inducing the formation of antisecretory proteins or homologues thereof having the same functional properties according to any one of claims 1-14.

17. Use according to any one of claims 1-2 and 5-14, wherein the medicament is formulated for intravenous infusion, intramuscular injection and/or subcutaneous injection.

18. Use according to any one of claims 1-2, 5-14, and 17, wherein the medicament is formulated so that the active substance will pass into the ventricles and/or other cavities at or in a patient's brain when it is administered to said patient.

19. Use according to any one of claims 1-2 and 5-14, wherein the medicament is formulated so that the active substance will pass into the cerebrospinal fluid of a patient when it is administered to said patient.

20. A method of propagating, inducing, reducing and/or maintaining the genesis of an isolated stem cell and/or stem cell progeny from any germinal layer *in vitro*, characterised by treating the isolated cell with an antisecretory protein or homologues thereof having the same functional properties, or an oligo- or polypeptide or derivatives thereof comprising an amino acid sequence of Formula I:

X1-V-C-X2-X3-K-X4-R-X5 (Formula I)

wherein

X1 is I, amino acids nos. 1-35 of SEQ ID NO:1, or is absent

X2 is H, R or K

X3 is S or L

X4 is T or A

X5 is amino acids nos. 43-46, 43-51, 43-80 or 43-163 of SEQ ID NO:1, or is absent,

or a pharmaceutically acceptable salt thereof.

21. A method according to claim 20, wherein Formula I has a sequence chosen from one of:

a) amino acids numbers 35-42 of SEQ ID NO:1,

b) amino acids numbers 35-46 of SEQ ID NO:1,

c) amino acids numbers 36-51 of SEQ ID NO:1,

d) amino acids numbers 36-80 of SEQ ID NO:1,

e) amino acids numbers 1-80 of SEQ ID NO:1, or

f) amino acids numbers 1-163 of SEQ ID NO:1

or a pharmaceutically acceptable salt thereof.

22. A method according to claim 20 or 21, wherein said isolated cell is chosen from the group comprising epithelial cells, fibroblasts, osteogenic cells, macrophages and microglial cells, vascular cells, bone cells, chondrocytes, myocardial cells, blood cells, neurons, oligodendrocytes, astroglial cells, progenitor cells, stem cells and/or cells derived from progenitor cells or stem cells.

23. A method of treatment and/or prevention of a condition associated with or characterised by a pathological loss and/or gain of cells, comprising administering to a patient in need thereof an effective amount of an antisecretory protein, or an oligo- or polypeptide or derivatives thereof comprising an amino acid sequence of Formula I:

X1-V-C-X2-X3-K-X4-R-X5 (Formula I)

wherein

X1 is I, amino acids nos. 1-35 of SEQ ID NO:1, or is absent

X2 is H, R or K

X3 is S or L

X4 is T or A

X5 is amino acids nos. 43-46, 43-51, 43-80 or 43-163 of SEQ ID NO:1, or is absent,

or a pharmaceutically acceptable salt thereof.

24. A method according to claim 23, wherein Formula I has a sequence chosen from one of:

a) amino acids nos. 35-42 of SEQ ID NO:1,

b) amino acids nos. 35-46 of SEQ ID NO:1,

c) amino acids nos. 36-51 of SEQ ID NO:1,

d) amino acids nos. 36-80 of SEQ ID NO:1,

e) amino acids nos. 1-80 of SEQ ID NO:1, or

f) amino acids numbers 1-163 of SEQ ID NO:1

or a pharmaceutically acceptable salt thereof.

25. A method according to claim 23 or 24, wherein the condition is characterised by displaying a pathological degeneration of, loss of ability and/or loss of control of regeneration of and/or loss of control of regeneration of a differentiated cell and/or tissue, an embryonic stem cell, an adult stem cell, a progenitor cell and/or a cell derived from a stem cell or progenitor cell.

26. A method according to any one of claims 23-25, wherein the condition is associated with or characterised by a pathological loss and/or gain of cells in the peripheral, autonomic or central nervous system.

27. A method according to any one of claims 23-26, wherein the condition is associated with or characterised by a pathological loss and/or gain of neural stem cells or neural progenitor cells.

28. A method according to any one of claims 23-26, wherein the condition is associated with or characterised by a pathological loss and/or gain of oligodendroglial, astroglial, Schwann cells, and/or neuronal cells and/or cell populations.

29. A method according to claim 28, wherein the condition is associated with or characterised by a pathological loss and/or gain of non-cholinergic neuronal cells, cholinergic neuronal cells and/or glial cells, and/or cell populations.

30. A method according to any one of claims 23-29, wherein the condition is caused by damage to the central nervous system or a defect in the central nervous system.

31. A method according to any one of claims 23-29, wherein the condition is caused by a traumatic, malignant, inflammatory, auto-immune or degenerative disorder.

32. A method according to any one of claims 23-29, wherein the condition is caused by axonal damage caused by concussion, contusion, axonal damage caused by head trauma, axonal damage caused by small vessel disease in the CNS and/or damage to the spinal cord after disease and/or trauma.

33. A method according to any one of claims 23-32, wherein said condition is characterised by memory loss.

34. A method according to any one of claims 23-33, wherein the condition is brain oedema, multiple sclerosis, asphyxia, hypoxic injury, ischemic injury, traumatic injury, Parkinson's disease, Alzheimer's disease, stroke, Ménière's disease or demyelinating disorder.

35. A method according to any one of claims 23-34, wherein the antisecretory protein or homologues thereof having the same functional properties, or the oligo- or polypeptide or derivatives thereof is formulated into a medicament for intravenous infusion, intramuscular injection and/or subcutaneous injection.

36. A method according to any one of claims 21-33, wherein the antisecretory protein or homologues thereof having the same functional properties, or the oligo- or polypeptide or derivatives thereof is formulated into a medicament so that the active substance will pass into the ventricles and /or other cavities in and/or at a patient's brain when it is administered to said patient.

37. A method according to any one of claims 21-34, wherein the antisecretory protein or homologues thereof having the same functional properties, or the oligo- or polypeptide or derivatives thereof is formulated into a medicament so that the active substance will pass into the cerebrospinal fluid of a patient when it is administered to said patient.

38. A method of propagating, inducing, reducing and/or maintaining the genesis of an isolated stem cell and/or stem cell progeny from any germinal layer from a patient, characterised by:

a) administering an effective amount of an antisecretory protein or homologues thereof having the same functional properties, or an oligo- or polypeptide or derivatives thereof comprising the amino acid sequence of Formula I as defined in claim 1 or claim 2 to said patient prior to isolating said cell;

b) propagating said isolated cell *in vitro*;

followed by

c) transplanting said propagated cells into the same or another patient in need thereof.

39. A method of propagating, inducing, reducing and/or maintaining the genesis of an isolated stem cell

and/or stem cell progeny from any germinal layer from a patient, characterised by:

a) isolating said cell and/or stem cell progeny from the patient;

b) administering an effective amount of an antisecretory protein or homologues thereof having the same functional properties, or an oligo- or polypeptide or derivatives thereof comprising the amino acid sequence of Formula I as defined in claim 1 or claim 2 to said isolated cell *in vitro* and propagating said cells; followed by

c) transplanting said propagated cells back into the same or another patient in need thereof.

40. A method according to claim 38 or claim 39, wherein said isolated cell is selected from the group consisting of fibroblasts, macrophages, vascular cells, bone cells, chondrocytes, myocardial cells, blood cells, neurons, oligodendrocytes, astroglial cells, Schwann cells, progenitor cells, stem cells and/or cells derived from progenitor cells or stem cells.

41. Use according to any one of claims 1-19, for the treatment of conditions associated with insufficient formation of antisecretory factors.

42. Use according to any one of claims 1-19, for the treatment of conditions associated with insufficient function of the AF receptors and antisecretory factor binding tissue constituents